

ABSTRACT

An antenna duplexer has

an antenna terminal;

a transmitting phase-shift circuit, one side of which is connected to the antenna terminal;

a receiving phase-shift circuit, one side of which is connected to the antenna terminal;

a transmitting filter connected to the other side of the transmitting phase-shift circuit and a transmitting terminal; and

a receiving filter connected to the other side of the receiving phase-shift circuit and a receiving terminal;

wherein the transmitting filter and/or the receiving filter is a composite filter, and the composite filter attains a characteristic having an attenuation pole at simultaneous transmission and reception time when transmission and reception are simultaneously performed, and controls respective impedances by the transmitting phase-shift circuit and the receiving phase-shift circuit to operate as a sharing unit and attains a characteristic where the attenuation pole is removed at non simultaneous transmission and reception time when transmission and reception are not performed simultaneously.

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